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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,439	07/31/2001	Romelia Flores	BOC9-2000-0079(214)	4220

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EXAMINER	
VO, LILIAN	

ART UNIT	PAPER NUMBER
2195	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/919,439	FLORES ET AL.	
	Examiner	Art Unit	
	Lilian Vo	2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 –17 are pending.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/16/05 has been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 4, 8, 9, 10, 13 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims **1, 4, 8, 9, 10, 13 and 17,** each recites the limitation "the direction" which lacks of antecedent basis.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1 – 9 are rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.

7. **Claims 1 – 8** are directed to method steps, which can be practiced mentally in conjunction with pen and paper, therefore they are directed to non-statutory subject matter. Specifically, as claimed, it is uncertain what performs each of the claimed method steps. Moreover, each of the claimed steps, inter alia, detecting, causing, comparing, receiving, determining, performing, analyzing, reporting, processing, monitoring, allocating, can be practiced mentally in conjunctions with pen and paper. The claimed steps do not define a machine or computer implemented process [see MPEP 2106]. Therefore, the claimed invention is directed to non-statutory subject matter. (The examiner suggests applicant to change "method" to "computer implemented method" in the preamble to overcome the outstanding 35 U.S.C. 101 rejection).

8. Regarding **claim 9**, the system is at best a software system, per se, failing to be tangibly embodied or include any recited hardware as part of the system.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1, 2 and 9 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hluchyj et al. (US 5,488,609, hereinafter Hluchyj) in view of Choquier et al. (US 5,951,694, hereinafter Choquier).

11. Regarding **claim 1**, Hluchyj discloses a method for providing dynamic workload transition in an application server for an e-business system (abstract), comprising:

detecting an overload condition in the e-business system (abstract, col. 5, lines 25 – 30);

causing a first reallocation of at least a portion of system resources allocated to a first set of workload tasks in the e-business system from said first set of workload tasks to a second set of workload tasks in response to detecting the overload condition, wherein processing said second set of workload tasks requires less system resources than processing said first set of workload tasks (col. 4, lines 27 – 39: partially retrieve allocated resources from existing connections, for example, temporary reduction of the rate for an existing connection to make room for an incoming switched connection that does not last long. Dynamic rate adjustment is connection management procedure for controlling the rates of certain connections in order to free up resources on selected, or marked links for reallocation).

With respect to the step of if the overload condition subsequently abates and if said first set of workload tasks require processing, performing a second reallocation of system resources to said first set of workload tasks, Hluchyj discloses that the source of each connection, whose rate is subject to dynamic adjustment, examines the path supporting the connection periodically or

based on an event trigger such that if all the links along the path are unmarked, the rate of the connection is increased from its previously agreed level to the requested level, provided the previously agreed level is lower than the requested and that the dynamic rate adjustment scheme may be implemented based on available capacity (col. 5, lines 1 – 18). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made to recognize that the dynamic rate adjustment such as the increased from the lower level to the higher level shows the step of reallocating the resource as it become available to fulfill the request as necessary when the situation allowed to enhance the quality of service (col. 5, lines 4 – 9).

Hluchyj did not clearly disclose the workload tasks are performed by a plurality of different applications under the direction of the e-business system. Nevertheless, Choquier discloses application servers are arranged into service groups, with each service group corresponding to a particular service (col. 2, lines 1 – 18). Therefore, it would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to incorporate this feature to Hluchyj to provide services with workload tasks perform by a plurality of different application as necessary in the computing environment.

12. Regarding **claim 2**, as modified Hluchyj discloses the detecting step further comprises

monitoring system parameters in the e-business system (Hluchyj: col. 4, lines 35 – 59); and

analyzing said monitored system parameters to determine when said overload condition occurs in the e-business system (Hluchyj: col. 4, lines 35 – 59: a link may be marked when it is overloaded).

13. Regarding **claim 9**, as modified Hluchyj discloses a system for providing dynamic workload transition in an e-business system, comprising:

an application server for receiving work requests and for processing workload task performed by at least one application under the direction of e-business system, the workload tasks being identified by said work requests (Hluchyj: abstract, col. 5, lines 25 – 31);

a workload driver for handling workload management of said application server, said handling comprising diminishing processing of a currently processed workload which causes an overload condition in the e-business system, and initiating the processing of a lighter workload, said lighter workload having a lighter load than said currently processed workload (Hluchyj: col. 4, lines 27 – 39: temporary reduction of the rate for an existing connection to make room for an incoming switched connection that does not last long. Dynamic rate adjustment is connection management procedure for controlling the rates of certain connections in order to free up resources on selected, or marked links for reallocation).

With respect to the limitation where a status driver for reporting system data to said workload driver, said system data providing information regarding the existence of said overload condition, Hluchyj discloses that a node is responsible for monitoring the link's status and that dynamic rate adjustment is connection management procedure for controlling the rates of certain connections in order to free up resources on selected, or marked links for reallocation (Hluchyj: col. 4, lines 35 – 59). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made to recognize that there is a communication between the monitoring

status and the workload management because of the provided information regarding the existence of the overload condition.

Hluchyj did not clearly disclose the workload tasks are performed by a plurality of different applications under the direction of the e-business system. Nevertheless, Choquier discloses application servers are arranged into service groups, with each service group corresponding to a particular service (col. 2, lines 1 – 18). Therefore, it would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to incorporate this feature to Hluchyj to provide services with workload tasks perform by a plurality of different application as necessary in the computing environment.

14. **Claims 10 – 11** are rejected on the same ground as stated in claims 1 – 2 above.

15. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hluchyj et al. (US 5,488,609, hereinafter Hluchyj).

16. Regarding **claim 8**, Hluchyj discloses a method for providing dynamic workload transition in an application server for an e-business system, comprising:

processing a workload assigned to a workload task performed by at least one application under the direction of e-business system, the workload task assigned to a workload driver (Hluchyj: abstract, col. 5, lines 25 – 31);

monitoring system resources to detect an overload condition in the e-business system while processing said workload task (Hluchyj: abstract, col. 5, lines 25 – 30);

allocating processing resources to a lighter workload task when said workload driver detects a system overload condition caused by said processed workload during said monitoring step (Hluchyj: col. 4, lines 27 – 39: temporary reduction of the rate for an existing connection to make room for an incoming switched connection that does not last long. Dynamic rate adjustment is connection management procedure for controlling the rates of certain connections in order to free up resources on selected, or marked links for reallocation).

With respect to the step of allocating resource to the first workload tasks if it requires processing when there is adequate resources become available, Hluchyj discloses that the source of each connection, whose rate is subject to dynamic adjustment, examines the path supporting the connection periodically or based on an event trigger such that if all the links along the path are unmarked, the rate of the connection is increased from its previously agreed level to the requested level, provided the previously agreed level is lower than the requested and that the dynamic rate adjustment scheme may be implemented based on available capacity (Hluchyj: col. 5, lines 1 – 18). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made to recognize that the dynamic rate adjustment such as the increased from the lower level to the higher level shows the step of allocating of the adequate resource as it become available to fulfill the request.

17. **Claim 17** is rejected on the same ground as stated in claim 8 above.

18. Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hluchyj et al. (US 5,488,609) in view of Choquier et al. (US 5,951,694), as applied to claims 1 and 10 above, and in view of Culbert (US 5,838,968).

19. Regarding **claim 3**, as modified Hluchyj discloses the monitoring of the resource utilization but did not clearly disclose that the monitored system parameters comprise CPU utilization, disk I/O and memory utilization. Nevertheless Culbert discloses of the monitoring system parameters including CPU utilization, disk I/O and memory utilization (col. 5, lines 21 – 40, col. 8, lines 1 – 18, col. 12, lines 51 – 63). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to incorporate Culbert's teaching to modified Hluchyj so that system performance can be monitored as resource utilization are dynamically managed.

20. **Claim 12** is rejected on the same ground as stated in claim 3 above.

21. Claims 4 – 7 and 13 - 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Culbert (US 5,838,968) in view of Ishidera (US Pat. Application Publication 2002/0040442).

22. Regarding **claim 4**, Culbert discloses a method for providing dynamic workload transition in an application server for an e-business system (abstract), comprising:

receiving a first work request for performing a workload task by at least one application under the direction of the e-business system (col. 9, lines 15 – 23);

determining the workload of said first work request (col. 9, lines 15 – 23, 40 – 46: tasks requests more resources);

comparing said workload of said first work request to available system resources to determine if performing said first work request is capable of causing a system overload condition in the e-business system (col. 9, lines 15 – 46: tasks have difficulty gaining access to needed resources if the resource becomes more constrained).

Culbert discloses the step of retrieving resource from an existing task with degradation where a task is asked to give up some of its resources and move to a lower run level when resource becomes constrained (col. 9, lines 15 – 46), which then requiring less resource. Culbert however did not disclose the step of transitioning to a second lighter work request to prevent the system overload condition. Nevertheless, the concept of preventing the system overload condition by switching to perform a lighter load or assigning requests/tasks to a lighter load is considered well know in the art for balancing workload. Additionally, the concept can be seen in Ishidera's disclosure in which when the determination result indicative of the operating environment requiring power saving based on the operating status on the battery, the switching unit switches the process to a process of a light load processing unit and executes an animation displaying process of relatively light load on the CPU (page 3, paragraph 33). It would have been obvious for one of an ordinary skill in the art, at the time the invention was made, to incorporate the concept from Ishidera's to Culbert so that quality of service can still be maintained at the same time while efficiently managing resource to avoid the overload condition.

23. Regarding **claim 5**, as modified Culbert discloses the analyzing said monitored system parameters to determine when the overload condition occurs (Culbert: fig. 3, col. 8, lines 24 – 59: update resource measurement. Col. 9, lines 15 – 46: tasks have difficulty gaining access to needed resource when resource become constrained.)

24. Regarding **claim 6**, as modified Culbert discloses the monitoring system parameters including CPU utilization, disk I/O and memory utilization (Culbert: col. 5, lines 21 – 40, col. 8, lines 1 – 18, col. 12, lines 51 – 63).

25. Regarding **claim 7**, as modified Culbert discloses the step of reporting the system parameters to a workload driver (Culbert: col. 10, lines 10 – 67: resource manager gets the update of the tasks resource utilization record).

26. **Claims 13 – 16** are rejected on the same ground as stated in claims 4 – 7 above.

Response to Arguments

27. Applicant's arguments filed 7/18/05 have been fully considered but they are not persuasive for the reasons set forth below.

28. With respect to applicant's remark that e-business system described in the specification are application-level tasks... involves transactions that occur across multiple system (page 9, 1st paragraph), it is noted that the features upon which applicant relies are not recited in the rejected

claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

29. In response to applicant's argument that Hluchyj does not dynamically allocate/reallocate resources (page 9, 3rd paragraph), the examiner disagrees. Hluchyj clearly discloses a system which allocate and reallocate resources in abstract, col. 4, lines 27 – 39, col. 5, line 32 – col. 6, line 60. This is also admitted by applicant's remarks in page 9, 2nd and 3rd paragraphs. Furthermore, claim only recites the allocation of resource and did not specify or require resource to be any particular kind such as links, connection, bandwidth, cpu and/or memory. Therefore, the allocation of resource in Hluchyj read on the claim.

30. In response to applicant's argument that Hluchyj does not address detecting an overload condition nor address causing one reallocation of system resource from one workload to another workload in response to a detected overload condition... (page 10, 1st paragraph), the examiner disagrees. These are clearly addressed with details in the rejection of claim 1 above. Applicant is directed to the rejection of above for the response.

31. With respect to applicant's remark that Hluchyj does not teach or suggest how resource are dynamically allocated n the context of an e-business system but applicant's invention does... (page 11, 3rd paragraph, 1st – 2nd sentences), the examiner disagrees. According to the office, e-business is understood as providing service or servicing customers. Hluchyj's invention is in a

form of e-business in which network communication service is provided to customers. Thus, Hluchyj clearly discloses how the resources are allocated in the context of e-business system.

Regarding applicant's remark that applicant's invention teaches how to detect an overload... and how to reallocate resource to handle competing workload requirements to mitigate the overload ... (page 11,3rd paragraph, last sentence), applicant is arguing a feature of the invention not specifically stated in the claim language, which is improper. Claim subject matter, not the specification, is the measure of invention. Limitations in the specification cannot be read into the claims for the purpose of avoiding the prior art. In re Self, 213 USPQ 1,5 (CCPA 1982); In re Priest, 199 USPQ 11,15 (CCPA 1978).

32. In response to applicant's argument that Hluchyj is nonanalogous art (page 12), it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Hluchyj is about allocating network communication resource, which provide services to customers.

33. Regarding applicant's remark that an e-business system application utilizes resources across multiple systems (page 14, 3rd and last paragraph), again applicant is arguing a feature of the invention not specifically stated in the claim language, which is improper. Claim subject matter, not the specification, is the measure of invention. Limitations in the specification cannot

be read into the claims for the purpose of avoiding the prior art. In re Self, 213 USPQ 1,5 (CCPA 1982); In re Priest, 199 USPQ 11,15 (CCPA 1978).

34.

35. In response to applicant's argument (page 15, last paragraph) that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Hluchyj does not teach or suggest application management in connection with an e-business system) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

36. With respect to applicant's argument (page 16, 1st paragraph) that Hluchyj does not deal with application workloads and, accordingly cannot provide for an adjustment of such application workloads, the examiner disagrees. Hluchyj deals with connection resources workloads, which inherently managed by an application. Therefore, it is proper to conclude that Hluchyj provides the adjustment of such applicant workload.

37. With respect to applicant's argument regarding claims 9, 10, 13 and 17 (page 16, last paragraph – page 17, last paragraph), the similar response as stated above will be applied.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Vo whose telephone number is 571-272-3774. The examiner can normally be reached on Monday - Thursday, 7:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist at 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lilian Vo
Examiner
Art Unit 2195

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October 28, 2005

MENG-AI T AN